

## Sequence Listing

## SEQ ID NO. 1

5 PSF Long Form PSF-A

P23246

707 aa linear

10 Splicing factor, proline-and glutamine-rich (Polypyrimidine tract-binding protein-associated splicing factor) (PTB-associated splicing factor) (PSF) (DNA-binding p52/p100 complex, 100 kDa subunit).

NP\_005057

15 splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated) [Homo sapiens].

CAA50283

707 aa linear

20 PTB-associated splicing factor [Homo sapiens].

1 msrdrfrsrg gggggfhrrg ggggrgglhd frspppgmgl nqnrpgmpgpg pgqsgpkppi  
 61 ppppphqqqq qpppqppppq qppphqppph pqphqqqqpp pppqdsskp vaggpgpapg  
 121 vgsappasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
 181 agppppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpglstpggh pkpphrggge  
 25 241 prggrqhphp yhqqhqqgpp pggpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
 301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
 361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
 421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm yqkeretpprf  
 481 aqhgtfeyey sqrwksldem ekqqreqvek nmkdakdkle semedayheh qanllrqdlm  
 30 541 rrqeelrrme elhnqemqkr kemqlrquee rrrreeemmi rqremeeqmr rqreesysrm  
 601 gymdprerdm rmggggamnm gdp ygsggqk fpplgggggi gyeangpvpp atmsgsmmgs  
 661 dmrterfggg gagpvgggpg rgmgpgtpag ygrgreeyeg pnkkprf

35 SEQ ID NO. 2

AAH51192

707 aa linear

40 Splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated) [Homo sapiens].

1 msrdrfrsrg gggggfhrrg ggggrgglhd frspppgmgl nqnrpgmpgpg pgqsgpkppi  
 61 ppppphqqqq qpppqppppq qppphqppph pqphqqqqpp pppqdsskp vaggpgpapg  
 121 vgstppasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
 45 181 agppppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpglstpggh pkpprrggge  
 241 prggrqhphp yhqqhqqgpp pggpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
 301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
 361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
 421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpm yqkeretptrf  
 50 481 aqhgtfeyey sqrwksldem ekqqreqvek nmkdakdkle semedayheh qanllrqdlm  
 541 rrqeelrrme elhnqemqkr kemqlrquee rrrreeemmi rqremedqmr rqreesysrm  
 601 gymdprerdm rmggggamnm gdp ygsggqk fpplgggggi gyeangpvpp atmsgsmmgs  
 661 dmrterfggg gagpvgggpg rgmgpgtpag ygrgreeyeg pnkkprf

55

## SEQ ID NO. 3

Isoform short - PSF-F  
669aa

5  
1 msrdrfrsrg gggggfhrrg ggggrgglhd frspppgmgl nqnrpgmpgpg pgqsgpkppi  
61 ppppphqqqq qpppqpppq qppphqppph pqphqqqqpp pppqdsskp vaggpgpapg  
121 vgsappasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
181 agppppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpplstpggh pkpphrggge  
10 241 prggrqhphp yhqhhqgpp gpgpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpmy qkeretpprf  
481 aqhgtfeyey sqrwksldem ekqgreveqve nmkdakdkle semedayheh qanllrqdlm  
15 541 rrqeelrrme elhnqemqkr kemqlrgeee rrrreeemmi rgreemeeqmr rgreesysrm  
601 gymdprerdm rmggggamnm gdpysgggk fpplgggggi gyeapgvpp atmsgsmmgs  
661 dmvrmidvg

## 20 SEQ ID NO. 4

AAH04534  
634 aa linear  
SFPQ protein [Homo sapiens].

25  
1 pqpppppppp phqppphpp hqqqqppppp qdsskpvaq gpgpapgvgs appasssapp  
61 atppts gapp gsgpgptpt ppavtsapp appptppssg vpttppqagg pppppaavpg  
121 ppgpgkqgpg pggpkggkmp ggpkgggpg lstpgghpkp phrgggeprg grqhghppyh  
181 qhhqgppppg pgggrseekis dsegfkanls llrrpgeky tqrclfvgn lpaditedef  
30 241 krlfakygep gevfkngkg fgfiklesra laeiakaeld dtpmrgrqlr vrfathaaal  
301 svrnls pyvs nelleeafsq fgpiervavi vddrgrstgk givefaskpa arkafercse  
361 gvfltttpr pvivepleql ddedglpekl aqknpmyqke retpprfaqh gtfeysqr  
421 wksldemek qreqveknmk dakdklesem edayhehqan llrqdlmrrq eelrrmeelh  
481 nqemqkrkem qlrgeeeerr reeemmirqr emeeqmrrqr eesysrmgym dprerdmrmg  
35 541 gggamnmgdp ysggqkfpp lgggggigye anpgvppatm sgsmmgsdmr terfgggag  
601 pvggqgprgm gpgtpagygr greeyegpnk kprf

## SEQ ID NO. 5

40  
AAH27708  
525 aa linear  
SFPQ protein [Homo sapiens].

45  
1 msrdrfrsrg gggggfhrrg ggggrgglhd frspppgmgl nqnrpgmpgpg pgqsgpkppi  
61 ppppphqqqq qpppqpppq qppphqppph pqphqqqqpp pppqdsskp vaggpgpapg  
121 vgsappasss appatppts gpgsgpgpt ptpppavtsa ppgappptpp ssgvpttppq  
181 agppppppaa vpgpgpgpkq gpgpgpgkkg kmpggpkpgg gpplstpggh pkpphrggge  
241 prggrqhphp yhqhhqgpp gpgpggrsee kisdsegfka nlsllrrpge ktytqrcrlf  
50 301 vgnlpadite defkrlfaky gepgevfink gkgfgfikle sralaeiaka elddtpmrgr  
361 qlrvrfatha aalsvrnlsp yvsnelleea fsqfgpiera vvivddrgrs tgkgivefas  
421 kpaarkafer csegvfltt tprpvivepl eqlddedglp eklaqknpmy qkeretpprf  
481 aqhgtfeyey sqrwksldem ekqgreveqve nmkdakdklk kkkkk

55

## SEQ ID. NO. 6

CAA34747

396 aa linear

5 DEFINITION myoblast antigen 24.1D5 [Homo sapiens].

1 efkrllfakyg epgevffinkg kgfgfikles ralaieiakae lddtpmrgrq lrvrfathaa  
 61 alsvrnlspy vsnelleeeaf sqfgpierav vivddrgrst gkgivefask paarkaferc  
 121 segvflttt prpviveple qlddedglpe klagknpmyq keretpprfa qhgtfeyey  
 10 181 qrwksldeme kqqreqvekn mkdakdkles emedayhehq anlrrqdlmr rqeelrrmee  
 241 lhnqemqkrk emqlrqeeer rrreeemmir qremeeqmrr qreesysrmg ymdprerdmr  
 301 mggggammng dpygsggqkf pplgggggig yeanpgvppa tmsgsmmgsd mrterfgggg  
 361 agpvvgggpr gmppgtpagy grgreeyegp nkkprf

15

## SEQ ID NO. 7

NM\_005066

3071 bp mRNA linear

20 Homo sapiens splicing factor proline/glutamine rich (polypyrimidine  
 tract binding protein associated) (SFPQ), mRNA.

X70944 S56626

3071 bp mRNA linear

25 H.sapiens mRNA for PTB-associated splicing factor.

1 ccgccatttt gtgagaagca aggtggcctc cacgtttcct gagcgtcttc ttcgcttttg  
 61 cctcgaccgc cccttgacca cagacatgtc tcgggagtcg ttccggagtc gtggcgggtg  
 121 cgggtggtggc ttccacaggc gtggaggagg cggcggccgc ggcggcctcc acgacttccg  
 30 181 ttctccgccc cccggcatgg gcctcaatca gaatcgccgc cccatgggtc ctggcccggg  
 241 ccagagcggc cctaagcctc cgatcccgc accgcctcca caccaacagc agcaacagcc  
 301 accaccgcag cagccaccgc cgcagcagcc gccaccgcag cagccgcccgc cgcattccaca  
 361 gccgcatcag cagcagcagc cgccgccacc gccgcaggac tcttccaagc ccgtcgttgc  
 421 tcagggaccc ggccccgctc ccggagtagg cagcgcacca ccagcctcca gctcggcccc  
 35 481 gcccgccact ccaccaacct cgggggcccc gccagggtcc gggccaggcc cgactccgac  
 541 cccgcccgcct gcagtcacct cggccccctc cggggcgccg ccacccaccc cgccaagcag  
 601 cgggggtccct accacacctc ctccaggccg aggcccgccg cctccgcccg cggcagtccc  
 661 gggcccgggt ccagggccta agcaggggcc aggtccgggt ggtcccaaag gcgggaaaat  
 721 gcctggcggg ccgaagccag gtggcggccc gggcctaagt acgcctggcg gccaccccaa  
 40 781 gccgcccgcg cgaggcggcg gggagccccg cgggggcccgc cagcaccacc cgccctacca  
 841 ccagcagcat caccaggggc ccccgcccgg cggggcccgc ggccgcagcg aggagaagat  
 901 ctccgactcg gaggggttta aagccaattt gtctctcttg aggaggcctg gagagaaaac  
 961 ttacacacag cgatgtcggg tgtttgttgg gaatctacct gctgatatac cggaggatga  
 1021 attcaaaaaga ctatttgcta aatatggaga accaggagaa gtttttatca acaaaggcaa  
 45 1081 aggattcgga tttattaagc ttgaatctag agctttggct gaaattgcca aagccgaact  
 1141 ggatgataca cccatgagag gtagacagct tcgagttcgc tttgccacac atgctgctgc  
 1201 cctttctgtt cgtaatcttt caccttatgt ttccaatgaa ctggttgaag aagcctttag  
 1261 ccaatttggt cctattgaaa gggctgttgt aatagtggat gatcgtggaa gatctacagg  
 1321 gaaaggcatt gttgaatttg cttctaagcc agcagcaaga aaggcatttg aacgatgcag  
 50 1381 tgaagggtgt ttcttactga cgacaactcc tcgtccagtc attgtggaac cacttgaaca  
 1441 actagatgat gaagatggtc ttccctgaaaa acttgcccag aagaatccaa tgtatcaaaa  
 1501 ggagagagaa acccctcctc gttttgccc gcatggcacg tttgagtacg aatattctca  
 1561 gcgatggaag tctttggatg aaatggaaaa acagcaaagg gaacaagttg aaaaaaacat  
 1621 gaaagatgca aaagacaaat tggaaagtga aatggaagat gcctatcatg aacatcaggc  
 55 1681 aaatcttttg cgccaagatc tgatgagacg acaggaagaa ttaagacgca tggagaagact

```

1741 tcacaatcaa gaaatgcaga aacgtaaaga aatgcaattg aggcaagagg aggaacgacg
1801 tagaagagag gaagagatga tgattcgtca acgtgagatg gaagaacaaa tgaggcgcca
1861 aagagaggaa agttacagcc gaatgggcta catggatcca cgggaaagag acatgcgaat
1921 gggtagggga ggagcaatga acatgggaga tccctatggg tcaggaggcc agaaatttcc
5 1981 acctctagga ggtggtggtg gcatagggtta tgaagctaata cctggcggtc caccagcaac
2041 catgagtggg tccatgatgg gaagtgcacat gcgtactgag cgctttgggc agggaggtgc
2101 ggggcctgtg ggtggacagg gtcctagagg aatggggcct ggaactccag caggatatgg
2161 tagagggaga gaagagtacg aaggcccaaa caaaaaaccc cgattttaga tgtgatattt
2221 aggccttcat tccagtttgt tttgtttttt tgttttagata ccaatctttt aaattcttgc
10 2281 attttagtaa gaaagctatc tttttatgga tgtagcagt ttattgacct aatatttgta
2341 aatggtctgt ttgggcagggt aaaattatgt aatgcagtgt ttggaacagg agaatttttt
2401 tttccttttt atttctttat tttttctttt ttactgtata atgtccctca agtttatggc
2461 agtgtacctt gtgccactga atttccaaag tgtaccaatt tttttttttt tactgtgctt
2521 caaataaata gaaaaatagt tataatattg gatcttcaac tttgccattc atgcttctat
15 2581 gcatattagg ctacgtattc cacattgaaa gcatgagagt gtctaggcct ttgaatggca
2641 tatgccattt ctgggaaatg catctggagg ctaagtattg ctttctacaa ataattgccc
2701 cctttgtttt aaaaagaaga aatgcatatt gaagtagttt gatgatttgt ttggcatata
2761 ggaagcacgc tgggtgctaag tatttttttaa atggttatgt aagcaaagct gaactgtaaa
2821 tcttcaggaa tatgtattaa gattgtggaa tgggtgtaag acaattggta gggggtgaaa
20 2881 gtgggtttga ttaaatggat cttttatggc cctatgatct atcctttact tgaaagcttt
2941 tgaaaagtgg aaaggtcatt ttgttgcat tccccatttc ttgtttttta aagaccaaca
3001 aatctcaagc cctataaatg gcttgtattg aacttttaca tttgaattaa agatgttaaa
3061 catgaaaaaa a

```

25

SEQ ID NO. 8

BC051192

2622 bp mRNA linear

30 Homo sapiens splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated), mRNA (cDNA clone), complete cds.

```

1 tctgtgtcat ccgccatttt gtgagaagca aggtggcctc cacgtttcct gacggtcttc
61 ttcgcttttg cctcgaccgc cccttgacca cagacatgtc tcgggatcgg ttccggagtc
35 121 gtggcggtgg cgggtggtggc ttccacaggc gtggaggagg cggcggccgc ggcggcctcc
181 acgacttccg ttctccgccg cccggcatgg gcctcaatca gaatcgccgc cccatgggtc
241 ctggcccggg ccagagcggc cctaagcctc cgatcccgc accgcctcca caccaacagc
301 agcaacagcc accaccgcag cagccaccgc cgcagcagcc gccaccgcat cagccgccgc
361 cgcattccaca gccgcatcag cagcagcagc cgccgccacc gccgcaggac tcttccaagc
40 421 ccgtcgttgc tcagggaccc ggcccgcctc ccggagtagg cagcacacca ccagcctcca
481 gctcggcccc gcccgccact ccaccaacct cgggggcccc gccagggtcc gggccaggcc
541 cgactccgac cccgcgcct gcagtcacct cggccctcc cggggcgccg ccaccacccc
601 cgccaagcag cggggtccct accacacctc ctcaggccgg agggccgccg cctccgcccg
661 cggcagtcct gggcccggtt ccagggccta agcagggcc aggtccgggt ggtcccaaag
45 721 gcggcaaaat gcctggcggg ccgaagccag gtggcgggcc gggcctaagt acgcctggcg
781 gccaccccaa gccgcgcgt cgaggcgccg gggagccccg cgggggcccgc cagcaccacc
841 cgccctacca ccagcagcat caccaggggc cccgcgccgg cgggcccggc ggccgcagcg
901 aggagaagat ctccgactcg gaggggttta aagccaattt gtctctcttg aggaggcctg
961 gagagaaaac ttacacacag cgatgtcggt tgtttgttgg gaatctacct gctgatatca
50 1021 cggaggatga attcaaaaga ctatttgcta aatatggaga accaggagaa gtttttatca
1081 acaaaggcaa aggattcgga tttattaagc ttgaatctag agctttggct gaaattgcca
1141 aagccgaact ggatgatata cccatgagag gtagacagct tcgagttcgc tttgccacac
1201 atgctgctgc cttttctgtt cgtaatcttt caccttatgt ttccaatgaa ctgttggaag
1261 aagcctttag ccaatttggt cctattgaaa gggctgttgt aatagtggat gatcgtggaa
55 1321 gatctacagg gaaaggcatt gttgaatttg cttctaagcc agcagcaaga aaggcatttg

```

```

1381 aacgatgcag tgaaggtggt ttcttactga cgacaactcc tcgtccagtc attgtggaac
1441 cacttgaaca actagatgat gaagatgggt ttcttgaaaa acttgcccag aagaatccaa
1501 tgtatcaaaa ggagagagaa acccctactc gttttgcccga gcatggcacg tttgagtacg
1561 aatattctca gcgatggaag tctttggatg aaatggaaaa acagcaaagg gaacaagttg
5 1621 aaaaaaacat gaaagatgca aaagacaaat tggaaagtga aatggaagat gcctatcatg
1681 aacatcaggc aaatcttttg cgccaagatc tgatgagacg acaggaagaa ttaagacgca
1741 tggaagaact tcacaatcaa gaaatgcaga aacgtaaaga aatgcaattg aggcaagagg
1801 aggaacgacg tagaagagag gaagagatga tgattcgtca acgtgagatg gaagacccaa
1861 tgaggcgcca aagagaggaa agttacagcc gaatgggcta catggatcca cgggaaagag
10 1921 acatgcgaat ggggtggcga ggagcaatga acatgggaga tccctatggg tcaggaggcc
1981 agaaatttcc acctctagga ggtgggtggg gcataggtta tgaagctaat cctggcggtc
2041 caccagcaac catgagtggg tccatgatgg gaagtgcacat gcgtactgag cgctttgggc
2101 agggaggtgc ggggcctgtg ggtggacagg gtcctagagg aatggggcct ggaactccag
2161 caggatatgg tagagggaga gaagagtacg aaggcccaaa caaaaaaccc cgattttaga
15 2221 tgtgatattt aggctttcat tccagtttgt tttgtttttt tgtttagata ccaatctttt
2281 aaattcttgc attttagtaa gaaagctatc tttttatgga tgttagcagt ttattgacct
2341 aatatttgta aatgggtctgt ttgggcagggt aaaattatgt aatgcagtgt ttggaacagg
2401 agaatttttt tttccttttt atttctttat tttttctttt ttactgtata atgtccctca
2461 agtttatggc agtgtacctt gtgccactga atttccaaag tgtaccaatt tttttttttt
20 2521 tactgtgctt caaataaata gaaaaatagt tataaaaaaa aaaaaaaaaa aaaaaaaaaa
2581 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa

```

## SEQ ID NO. 9

25

X16850

2021 bp mRNA linear

Human mRNA for myoblast cell surface antigen 24.1D5.

```

30 1 gaattcaaaa gactatttgc taaatatgga gaaccaggag aagttttttat caacaaaggc
61 aaaggattcg gatttattaa gcttgaatct agagcttttg ctgaaattgc caaagccgaa
121 ctggatgata caccatgag aggtagacag ctctcaggtc gctttgccac acatgctgct
181 gccctttctg ttcgtaatct ttcaccttat gtttccaatg aactgttgga agaagccttt
241 agccaatttg gtctatttga aagggtgtgt gtaatagtgg atgatcgtgg aagatctaca
35 301 gggaaaggca ttgttgaatt tgcttctaag ccagcagcaa gaaaggcatt tgaacgatgc
361 agtgaagggt ttttcttact gacgacaact cctcgtccag tcattgtgga accacttgaa
421 caactagatg atgaagatgg tcttcctgaa aaacttgccc agaagaatcc aatgtatcaa
481 aaggagagag aaaccctcc tcgttttgcc cagcatggca cgtttgagta cgaatattct
541 cagcgatgga agtcttttga tgaaatggaa aaacagcaaa gggaacaagt tgaaaaaac
40 601 atgaaagatg caaaagacaa attggaaagt gaaatggaag atgcctatca tgaacatcag
661 gcaaatcttt tgcgccaaga tctgatgaga cgacaggaag aattaagacg catggaagaa
721 cttcacaatc aagaaatgca gaaacgtaaa gaaatgcaat tgaggcaaga ggaggaacga
781 cgtagaagag aggaagagat gatgattcgt caacgtgaga tggaagaaca aatgaggcgc
841 caaagagagg aaagttacag ccgaatgggc tacatggatc cacgggaaag agacatgcga
45 901 atgggtggcg gaggagcaat gaacatggga gatccctatg gttcaggagg ccagaaattt
961 ccacctctag gaggtgggtg tggcataggt tatgaagcta atcctggcgt tccaccagca
1021 accatgagtg gttccatgat gggaagtgac atgcgtactg agcgcttttg gcaggagggt
1081 gcggggcctg tgggtggaca gggtcctaga ggaatggggc ctggaactcc agcaggatat
1141 ggtagaggga gagaagagta cgaaggccca acaaaaaaac cccgatttta gatgtgatat
50 1201 ttaggctttc attccagttt gttttgtttt tttgtttaga taccaatctt ttaaattctt
1261 gcatttttagt aagaaagcta tctttttatg gatgttagca gtttattgac ctaatatattg
1321 taaatgggtc gtttgggcag gtaaaattat gtaatgcagt gtttgggaca ggagaatttt
1381 ttttcctttt tatttcttta tttttctttt tttactgtat aatgtccctc aagtttatgg
1441 cagtgtacct tgtgccactg aatttccaaa gtgtaccaat tttttttttt ttactgtgct
55 1501 tcaaataaat agaaaaatag ttataatatt gatcttcaac tttgccattc atgcttctat

```

1561 gcatattagg ctacgtattc cacattgaaa gcatgagagt gtctaggcct ttgaatggca  
 1621 tatgccattt ctgggaaatg catctggagg ctaagtattg ctttctacaa ataattgccc  
 1681 cctttgtttt aaaaagaaga aatgcatatt gaagtagttt gatgatttgt ttggcatata  
 1741 ggaagcacgc tgggtgctaag tatTTTTTtaa atgggttatgt aagcaaagct gaactgtaaa  
 5 1801 tcttcaggaa tatgtattaa gattgtggaa tgggtgtaag acaattggta ggggggtgaaa  
 1861 gtggggtttga ttaaattggat cttttatggc cctatgatct atcctttact tgaaagcttt  
 1921 tgaaaagtgg aaaggtcatt ttgttgcat tccccatttc ttgttttttaa aagaccaaca  
 1981 aatctcaagc cctataaatg gcttgtattg aaccgaatt c

10

SEQ ID NO. 10

NP\_000917

933 aa linear

15 progesterone receptor [Homo sapiens]

AAS00096

933 aa linear

20 progesterone receptor [Homo sapiens]

AAD01587

933 aa linear

progesterone receptor [Homo sapiens]

25 AAA60081

933 aa linear

progesterone receptor Homo sapiens

P06401

30 933 aa linear

Progesterone receptor (PR).

1 mtelkakgpr aphvaggpps pevgsp1lcr paagpfpgsq tsdtlpevsa ipisl dgllf  
 61 prpcqgqgps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl ldsvldtlla  
 35 121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplm srsgc vgdssgtaa  
 181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedssese esagp1lkkgk  
 241 pralggaaag ggaaacppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv  
 301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprtspcass tpvavgd fdpd  
 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg  
 40 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc  
 481 kapgasgcll prdglpsta saaaagaapa lypalglngl pqlgyqaavl keglpqvypp  
 541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegqhn  
 601 ylcagrndci vdkirrkn cp acrlrkccqa gmvlggrkfk kfnkvr vvra ldavalp qpl  
 661 gvpnesqals qrftf spgqd iqlippllnl lmsiepdviy aghdntk pdt sssltslnq  
 45 721 lgerql lsvv kwskslp gfr nlhiddqitl iqyswmslmv fglgwrsykh vsgqmlyfap  
 781 dlilneqrmk essfyslclt mwqipqefvk lqvsqeeflc mkvllllnti pleglrsqtq  
 841 feemr ssyir elikaiglrq kgvvsssqrf yqltklldnl hdlvkqlhly clntfigsra  
 901 lsvefpemms eviaaqlpki lagmvkpllf hkk

50

SEQ ID NO. 11

BAB91074

831 aa linear

55 delta 4 progesterone receptor [Homo sapiens]

```

      1 mtelkakgpr aphvaggpps pevgsp1lcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqsl sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    121 psgpgqsqps ppacevtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
5    181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vav gdfpd
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
      421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc
10   481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegqhn
      601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg
      661 lgwrsykhvs gqmlyfapdl ilneqrmkes sfyslcltmw qipqefvklq vsqeeflcmk
      721 vl1111ntipl eglrsqtqfe emrssyirel ikaiglrqkg vvsssqrify ltkl1dn1hd
15   781 lvkqlhlycl ntfigsrals vefpemmsev iaaqlpkila gmvkpllfhk k

```

## SEQ ID NO. 12

BAC06585

20 695 aa linear  
Progesterone receptor [Homo sapiens]

```

      1 mtelkakgpr aphvaggpps pevgsp1lcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqsl sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    25 121 psgpgqsqps ppacevtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
      181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vav gdfpd
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
    30 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc
      481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegqhn
      601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg
      661 lgwrsykhvs gqmlyfapdl ilndsfg rat ksnpv
35

```

## SEQ ID NO. 13

BAC11011

40 764 aa linear  
delta 3+6/2 progesterone receptor [Homo sapiens].

```

      1 mtelkakgpr aphvaggpps pevgsp1lcr paagpfpgsq tsdtlpevsa ipisldgllf
      61 prpcqgqdps dektqdqqsl sdvegaysra eatrgaggss ssppekds gl lds vldtlla
    45 121 psgpgqsqps ppacevtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa
      181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkgk
      241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv
      301 mdfi hvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vav gdfpd
      361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d fplg
    50 421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc
      481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp
      541 ylnylrpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegrkf
      601 kkfnkvrvvr aldavalppp vgvpn esqal sgrftf spgg diqlipplin llmsiepdvi
      661 yaghdntkpd tsssl1tsln qlgerqllsv vkwskslpgf rnlhiddqit liqyswmslm
55 721 vfglgwrsyk hvsgqmlyfa pdlilneshr slssfklakk sssv

```

## SEQ ID NO.14

5 BAC11012  
690 aa linear  
delta4+6/2 progesterone receptor [Homo sapiens]

1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisl dgllf  
10 61 prpcqgqgps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla  
121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa  
181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkkgk  
241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv  
301 mdfihvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vavgd f p d  
15 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d f p l g  
421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc  
481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp  
541 ylanyl rpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegqhn  
601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggfrnl hiddqitliq yswmslmvfg  
20 661 lgwrsykhvs gqmlyfapdl ilneqsivts

## SEQ ID NO.15

25 BAC11013  
803 aa linear  
delta 6/2 progesterone receptor [Homo sapiens].

1 mtelkakgpr aphvaggpps pevgspllcr paagpfpgsq tsdtlpevsa ipisl dgllf  
30 61 prpcqgqgps dektqdqqs1 sdvegaysra eatrgaggss ssppekds gl lds vldtlla  
121 psgpgqsqps ppacvtssw clfgpelped ppaapatqrv lsplmsrsgc kvgdssgtaa  
181 ahkvlprgls parqlllpas esphwsgapv kpspqaaave veeedgsese esagpllkkgk  
241 pralggaaag ggaaavppga aaggvalvpk edsrf saprv alveqdapma pgrsplattv  
301 mdfihvpilp lnhallaart rqlledesy d ggagaasafa pprsspcass t p vavgd f p d  
35 361 cayppdaepk ddayplysdf qppalkikee eegaeasars prsylvagan paafp d f p l g  
421 pppplpprat psrpgeaavt aapasasvss asssgstlec ilykaegapp qggpfapppc  
481 kapgasgcll prdglpstsa saaaagaapa lypalglngl pqlgyqaavl keglpqvypp  
541 ylanyl rpdse asqspqysfe slpqkiclic gdeasgchyg vltcgsckvf fkramegqhn  
601 ylcagrndci vdkirrkncp acrlrkccqa gmvlggrkfk kfnkvrvvra ldavalppqv  
40 661 gvpnesqals qrftf spgqd iqlipplinl lmsiepdviy aghdntk p d t s s s l l t s l n q  
721 lgerql lsvv kwskslp gfr nlhiddqitl iqyswmslmv fglgwrsykh vsgqmlyfap  
781 dlilneshrs lssfklakks ssv

## 45 SEQ ID NO. 16

FGQGGAGPVGGQGP

## 50 SEQ ID NO.17

CTGAGTC

## 55 SEQ ID NO. 18

YGEPGEVFINKGK

5 SEQ ID NO. 19

GIVEFASKPAAR

10 SEQ ID NO. 20

FAQHGTEEYEYSQR

15 SEQ ID NO. 21

NP\_076092 (Murine PSF)

1 msrdrfrsrg gggggfhrreg ggggrgglhd frspppgmgl nqnrpgmpgpg pggpkpplpp  
20 61 ppphqqqqqp ppqppppqp pphqqppphq pphqqppppp qeskpvpvpg pgsapgvssa  
121 pppavsappa nppttgappg pgptptpppa vpstapggpp pstpssgvst tppqtggppp  
181 ppaggagpgp kpgpgpggpk ggkmpgggpk gggpgmgapg ghpkpphrpg geprggrqhh  
241 apyhqqhhqg pppggpgprt eekisdsef kanlsllrrp gektytqrer lfvgnlpadi  
301 tedefkrlfa kygepgevfi nkgkgfgfik lesralaeia kaelddtpmr grqlrvrfat  
25 361 haaalsvrnl spyvsnelle eafsqfgpie ravvivddrg rstgkgivef askpaarkaf  
421 ercsegvflf tttprpvive pleqlddedg lpeklaqknp myqkeretpp rfaqhgtfey  
481 eysqrwksld emekqqreqv eknmkdakdk lesemedayh ehqanllrqd lmrrqeelrr  
541 meelhsqemq krkemqlrge eerrrrreem mirqremeeq mrrqreesys rmgyndprer  
601 dmrmggggtm nmgdpvgsgg qkfpplgggg gigyeangepv ppatmsgsmm gsdmrterfg  
30 661 qggagpvvgg gprgmgpptp agygrgreey egpnkkprf

SEQ ID NO. 22

35 VRMIDVG